

Please remove Index and retain with your 1981 issues

INDEX TO PRODUCTION ENGINEER Vol 60 1981

Subject index

A

Accounts: Annual Report and Accounts 1979-80 **Jan p40**
Adhesives: The 'ultimate' adhesives are here. But will engineers think to use them? **Nov p49**
After Burbidge — and all that! **Mar p47**
Allen-Bradley launches its DNC concept based on a PDP minicomputer **Mar p22**
Alternatives to conventional tool making, The **Dec p28**
Aluminium: Low pressure diecasting gives better yields and a finer finish (Castings feature) **Oct p32**
AMMO is launched! **Jul/Aug p49**
Annual Dinner: President's speech **Jan p16**
Annual Report and Accounts 1979-80 **Jan p33**
Arc welding robots are not yet truly universal **Feb p19**
Are you in the right job? (Careers Special Feature) **Jan p30**
ASP is alive and well but going in a different direction **Apr p17**
Automate or liquidate—and FAST! **Dec p45**
Automated assembly: The importance of the component in automated assembly **May p29**
Automated moulding (Castings Feature) **Oct p23**
Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

B

Becoming an Associate member (Careers Special Feature) **Jan p48**
Bending machines: CNC bending improves exhaust pipe performance **Mar p43**
BICEPS lifts weight off the programmer **Apr p34**
Block tooling: This is block tooling. Will NC turning ever be the same again? **Mar p17**
BNCS 81—Britain's NC shop window **Mar p56**
BOMP: How OMAC & BOMP help Harrisons control costs (CAD/CAM Feature) **Oct p55**
Boring: Profile boring of 'deep' holes **Apr p41**
Burbidge: After Burbidge—and all that! **Mar p47**
Buying new machines—it's not all science (4.EMO Feature) **Sep p47**

C

CAD: Computer-aided roll design for cold roll forming **Sep p32**
CAD and CAM come together **June p49**
CAD/CAM: CNC bending improves exhaust pipe performance **Mar p43**
CAD/CAM directory published (CAD/CAM Feature) **Oct p47**
CAD/CAM Feature:
 Dragging the drawing office into the 20th century **Oct p45**
 CAD/CAM directory published **Oct p47**
 How OMAC & BOMP help Harrisons control costs **Oct p55**
 One step nearer 'bolt-on' DNC **Oct p51**
 Software packages for production control **Oct p56**
CAD/CAM: How this job has taken Dowty into NC and CAD/CAM **Apr p13**
CBN:
 Diamond turns up trumps (Cutting Feature) **Feb p42**
 How manufacturers are turning to diamonds and CBN for increased profit (Cutting Feature) **Feb p27**
 Tool life—how synthetics rate (Cutting Feature) **Feb p34**

Cameras: intelligent cameras—the brains behind television manufacture **May p42**

Careers Special Feature:

Fewer polytechnic students enter engineering **Jan p22**
Are you in the right job? **Jan p30**
Becoming an Associate Member **Jan p48**
Engineering careers—what are the options? **Jan p21**
Fewer polytechnic students enter engineering **Jan p22**
Mid career education. Are we doing enough to meet the challenge of the 80s? **Jan p25**
MIProDE—the route to Institution membership **Jan p47**
"The Production Engineer" A film for youngsters **Jan p54**
Production Engineers—this is your life! **Jan p50**
Taking technology into the schools **Jan p61**

Casting Feature:

Automated moulding **Oct p23**
Disamatic process **Oct p19**
Investment casting—unique but little known **Oct p23**
Low pressure diecasting gives better yields and a finer finish **Oct p32**
Shaking the sand boys! **Oct p17**
Turning a foundry into a factory the V-process way **Oct p26**

Ceramics:

Optimising the machining of ceramics (Cutting Feature) **Feb p37**
The super ceramic? (Cutting Feature) **Feb p31**
Syalon for high speed cutting **Nov p37**

CNC:

When investing in CNC really takes off **Dec p47**
Bending improves exhaust pipe performance **Mar p43**
BICEPS lifts weight off the programmer **Apr p34**
First Max-E-Mill CNC retrofit **Apr p29**
Cold roll forming. The art that could do with some science? **Sep p19**
Cold roll forming: Computer-aided roll design for cold roll forming **Sep p32**
Computer-aided roll design for cold roll forming **Sep p32**

Computers:

Distributed computer system controls can making line **Jul/Aug p55**
Low-cost computers in production planning and control systems **May p44**

Conform—all set to change the face of metal extrusion **Dec p19**

Co-operation—the key to national recovery **July/Aug p3**

Cost-effective lubrication **Feb p49**

Council 1981/82 **Nov p62**

Creep feed and robots in Kongsberg's FMS recipe **Jul/Aug p45**

Cutting Feature:

Diamond powders for lapping and polishing **Feb p46**
Diamond turns up trumps **Feb p62**
Do-it-yourself diamond tools **Feb p30**
Facts on forming for grinding wheels **Feb p40**
How manufacturers are turning to diamonds and CBN for increased profit **Feb p27**
Optimising the machining of ceramics **Feb p37**
Polycrystalline diamond improves tolerances on GRP pipe joints **Feb p39**
The super ceramic? **Feb p31**
Tooling up with polycrystalline **Feb p31**
Cutting: Syalon for high speed cutting **Nov p37**
Cutting out gaskets! **Dec p41**

D

DNC: Allen-Bradley launches its DNC concept based on a PDP minicomputer **Mar p22**

One step nearer 'bolt-on' DNC (CAD/CAM Feature) **Oct p51**

Diamonds:

Do-it-yourself diamond tools (Cutting Feature) **Feb p30**

How manufacturers are turning to diamonds and CBN for increased profits (Cutting Feature) **Feb p27**

Optimising the machining of ceramics (Cutting Feature) **Feb p37**

Polycrystalline diamond improves tolerances on GRP pipe joints (Cutting Feature) **Feb p39**

Tool life—how synthetics rate (Cutting Feature) **Feb p34**

Tooling up with polycrystalline (Cutting Feature) **Feb p31**

Diamond turns up trumps (Cutting Feature) **Feb p42**

Diamond powders for lapping and polishing (Cutting Feature) **Feb p46**

Diecasting: Low pressure diecasting gives better yields and a finer finish (Castings Feature) **Oct p32**

Disamatic process, The (Casting Feature) **Oct p19**

Distributed computer system controls can making line **July/Aug p55**

Do-it-yourself diamond tools (Cutting Feature) **Feb p30**

Dragging the drawing office into the 20th century (CAD/CAM Feature) **Oct p45**

E

Effset process uses ice bond **Nov p36**

Electroplating: fluidised beds offer savings in electroplating (Surface Coatings Feature) **July/Aug p33**

4.EMO Feature:

Buy that new machine the right way! **Sep p40**

Buying new machines—it's not all science **Sep p47**

How to make a wise capital investment. Make friends with your accountant **Sep p59**

Preview of what's on show in Hanover **Sep p67**

"Engineer yourself a brighter future" **Oct p58**

Engineering careers—what are the options? (Careers Special Feature) **Jan p21**

Exhaust pipes: CNC bending improves exhaust pipe performance **Mar p43**

Extrusion: Conform—all set to change the face of metal extrusion **Dec p19**

F

Facts on forming for grinding wheels, The (Cutting Feature) **Feb p40**

FAST: Automate or liquidate—and FAST! **Dec p45**

Fault detection: TV screen brings X-ray fault detection onto the production line **June p25**

Fewer polytechnic students enter engineering (Careers Special Feature) **Jan p22**

First details of SCAMP system progress **May p16**

First Max-E-Mill CNC Retrofit **Apr p29**

Five new ways to make things **Nov p35**

Flexible labour systems **Nov p26**

Flexible manufacture of prismatic and cylindrical shapes **May p19**

Fluidised beds offer savings in electroplating (Surface Coatings Feature) **Jul/Aug p33**

FMS—the only future for manufacturing **Apr p38**

FMS: Creep feed and robots in Kongsberg's FMS recipe **Jul/Aug p45**

Open at last—Britain's first FMS system **May p14**

Foundries: Turning a foundry into a factory the V-process way (Casting Feature) **Oct p26**

From a discouraging start to £½million worth of NC **Apr p22**

G

Galvanizing stages a comeback on costs (Surface Coatings Feature) **Jul/Aug p19**

GRP: Polycrystalline diamond improves tolerances on GRP pipe joints (Cutting Feature) **Feb p40**

Getting a micro to do a real job **Jan p69**

Grinding: the facts on forming for grinding wheels (Cutting Feature) **Feb p39**

H

High solids paint now applied using new high speed discs (Surface Coatings Feature) **Jul/Aug p40**

Hire purchase: Use or ownership—the choices **Apr p46**

Hoover justifies hot runner on grounds of shape **Feb p52**

How Hermes keeps tabs on production **Dec p25**

How manufacturers are turning to diamonds and CBN for increased profit (Cutting Feature) **Feb p27**

How OMAC & BOMP help Harrisons control costs (CAD/CAM Feature) **Oct p55**

How this job has taken Dowty into NC and CAD/CAM **Apr p13**

How to make a wise capital investment. Make friends with your accountant (4.EMO Feature) **Sep p59**

How to select a paint system (Surface Coatings Feature) **Jul/Aug p13**

I

Importance of the component in automated assembly, The **May p29**

Injection moulding:

Hoover justifies hot runner on grounds of shape **Feb p52**

How Hermes keeps tabs on production **Dec p25**

Micros bring the moulding shop under control **Nov p57**

Moulding without sprues and runners **Feb p50**

Inspection: Integrated machining and inspection reduces scrap **Mar p40**

Look into the future of inspection, A **Mar p39**

Integrated machining and inspection reduces scrap **Mar p40**

Intelligent cameras—the brains behind television manufacture **May p42**

Investment casting: shaking the sand boys! (Casting Feature) **Oct p17**

Investment casting—unique but little known (Casting Feature) **Oct p23**

Ion plating: Examples of ion plating applications (Surface Coatings Feature) **Jul/Aug p38**

Ion plating: Surface coating by ionic bombardment (Surface Coatings Feature) **Jul/Aug p37**

K

KANBAN—the production control system that makes Toyota cars 'just in time' **Apr p49**

Key to survival—one robot per IProDE member **Jul/Aug p51**

L

Laser's new-found credibility, The **Dec p00**

Lapping: Diamond powders for lapping and polishing (Cutting Feature) **Feb p46**

Leasing: Use or ownership—the choices **Apr p46**

Let LOCAM take the paperwork out of planning **June p15**

Look into the future inspection, A **Mar p39**

Looking forward to a successful year **Oct p3**

Lost metal plastics moulding **Nov p38**

Lost wax process: Shaking the sand boys! (Casting Feature) **Oct p17**

Low-cost computers in production planning and control systems **May p44**

Low cost tooling Feature:

Alternatives to conventional tool making, The **Dec p28**

Laser's new-found credibility, The **Dec p31**

Low melt alloys cut press tool costs **Dec p32**

Photo-etching for high precision **Dec p30**

Superplastic alloy for cheap tooling **Dec p30**

Low melt alloys cut press tool costs (Low cost tooling Feature) **Dec p32**

Lubrication: Cost-effective lubrication **Feb p49**

M

Max-E-Mill: First Max-E-Mill CNC retrofit **Apr p29**

Membership: Becoming an Associate Member (Careers Special Feature) **Jan p48**

MIProDE—the route to Institution membership (Careers Special Feature) **Jan p47**

Micros bring the moulding shop under control **Nov p57**

Micros:

Getting a micro to do a real job **Jan p69**

PET speeds up tape preparation for press tool manufacturer **May p23**

UK industry fails to apply microelectronics in manufacturing **Jan p65**

Mid career education: Are we doing enough to meet the challenge of the 80s? **Jan p25**

MIProDE—the route to Institution membership (Careers Special Feature) **Jan p47**

Moulding without sprues and runners **Feb p50**

Moulding: Lost metal plastics moulding **Nov p38**

N

NC:

Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

BNCS 81—Britain's NC shop window **Mar p56**

From a discouraging start to £½million worth of NC **Apr p22**

How this job has taken Dowty into NC and CAD/CAM **Apr p13**

Swedish controls keep production on the move **May p38**

This is block tooling. Will NC turning ever be the same again? **Mar p17**

NC tape conversion **Apr p29**

Nitride hardening in plasma **Nov p38**

No paperwork, no problems **Nov p19**

O

OMAC: How OMAC & BOMP help Harrisons reduce costs (CAD/CAM Feature) **Oct p55**

One step nearer 'bolt-on' DNC (CAD/CAM Feature) **Oct p51**

Open at last—Britain's first FMS system **May p14**

Optimising the machining of ceramics (Cutting Feature) **Feb p37**

P

Paints: High solids paint now applied using new high speed discs (Surface Coatings Feature) **July/Aug p40**

PERA: NC tape conversion **Apr p29**

PET speeds up tape preparation for press tool manufacturer **May p23**

Period batch control; After Burbidge—and all that! **Mar p47**

Photo-etching for high precision (low cost tooling Feature) **Dec p30**

Plastics: How Hermes keeps tabs on production **Dec p25**

Polishing: Diamond powders for lapping and polishing (Cutting Feature) **Feb p46**

Polycrystalline diamond improves tolerances on GRP pipe joints (Cutting Feature) **Feb p39**

Polytechnics: Fewer polytechnic students enter engineering (Careers Special Feature) **Jan p22**

President's speech to the Annual Dinner **Jan p16**

Principal officers 1981/82 **Jul/Aug p58**

Process planning problems? First, see how with See-Why **Dec p14**

Process planning: Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

Producing production engineers who understand business (Careers Special Feature) **Jan p57**

Productive life, The **June p38**

Production control:

No paperwork, no problems **Nov p19**

Software packages for production control (CAD/CAM Feature) **Oct p55**

KANBAN—the production control system that makes Toyota cars 'just in time' **Apr p49**

Let LOCAM take the paperwork out of planning **June p15**

Low-cost computers in production planning and control systems **May p44**

Production Engineer, The—a film for youngsters (Careers Special Feature) **Jan p54**

Production engineers—this is your life! (Careers Special Feature) **Jan p50**

Production engineer's only future, The—getting through to management **June p46**

Profile boring of 'deep' holes **Apr p41**

Programming: BICEPS lifts weight off the programmer **Apr p34**

R

REAP: Taking a new look at work measurement **May p34**

Robots:

Arc welding robots are not yet truly universal **Feb p19**

Creep feed and robots in Kongsberg's FMS recipe **Jul/Aug p45**

Key to survival—one robot per IProDE member **Jul/Aug p51**

Unmanned spray booths—the goal for UK robot manufacturer **Jul/Aug p53**

S

Saab accelerates chassis production with DNC **May p41**

Saab discloses plans to manufacture controls in the UK **May p38**

Sand casting: Effset process uses ice bond **Nov p36**

SCAMP: First details of SCAMP system progress **May p16**

Schools: Taking technology into the schools (Careers Special Feature) **Jan p61**

Schools: "The Production Engineer"—a film for youngsters (Careers Special Feature) **Jan p54**

Scrap reduction: Integrated machining and inspection reduces scrap **Mar p40**

See-Why: Process planning problems? First, see how with See-Why **Dec p14**

Shaking the sand boys! (Casting Feature) **Oct p17**

Sheet metal: Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

Sialons: The super ceramic? (Cutting Feature) **Feb p31**

Simulation: Process planning problems? First, see how with See-Why **Dec p14**

Sixty years on—What next? **June p34**

Software packages for production control (CAD/CAM Feature) **Oct p56**

Spraying: Thermal spraying puts most materials on most substrates (Surface Coatings Feature) **Jul/Aug p28**

Spraying: Unmanned spray booths—the goal for UK robot manufacturer **Jul/Aug p53**

Squeeze forming—useful hybrid **Nov p37**

Super ceramic, The? (Cutting Feature) **Feb p31**

Surface coating by ionic bombardment! (Coatings Feature) **Jul/Aug p37**

Surface Coatings Feature:

Examples of ion plating applications **Jul/Aug p38**

Fluidised beds offer savings in electroplating **Jul/Aug p33**

Galvanizing stages a comeback on costs **Jul/Aug p19**

How to select a paint system **Jul/Aug p13**

Thermal spraying puts most materials on most substrates **Jul/Aug p28**

Thermoset powders protect metals and plastics **Jul/Aug p23**

Swedish controls keep production on the move **May p38**

Syalon for high speed cutting **Nov p37**

T

TV screen viewing brings X-ray fault detection on to the production line **June p25**

Taking a new look at work measurement **May p34**

Taking technology into the schools (Careers Special Feature) **Jan p61**

Tape preparation: PET speeds up tape preparation for press tool manufacturer **May p23**

Thermoset powders protect metals and plastics (Surface Coatings Feature) **Jul/Aug p23**

Thermal spraying puts most materials on most substrates (Surface Coatings Feature) **Jul/Aug p28**

This is block tooling. Will NC ever be the same again? **Mar p17**

Times Engineering Essay Competition, The "Engineer yourself a brighter future" **Oct p58**

Tool life—how synthetics rate (Cutting Feature) **Feb p34**

Tool making: The alternatives to conventional tool making (Low cost tooling Feature) **Dec p28**

Tooling up with polycrystalline (Cutting Feature) **Feb p31**

Turning a foundry into a factory the V-process way (Casting Feature) **Oct p26**

Turning: This is block tooling. Will NC ever be the same again? **Mar p17**

U

UK industry fails to apply microelectronics in manufacturing **Jan p65**
'Ultimate' adhesives are here. But will engineers think to use them? **Nov p49**
Unmanned spray booths—the goal for UK robot manufacturer **Jul/Aug p53**
Use or ownership—the choices **Apr p46**

V

V-process: Turning a foundry into a factory the V-process way (Casting Feature) **Oct p26**
Vocational guidance: Are you in the right job? (Careers Special Feature) **Jan p30**

B

Benedict, Eric: "Engineer yourself a brighter future" **Oct p58**
Bhattacharyya, Prof S K: The super ceramic? **Feb p31**
Blore, David: Taking a new look at work measurement **May p34**

C

Cadney, Steve: Cold roll forming. The art that could do with some science? **Sep p19**
Cook, Brian: Micros bring the moulding shop under control! **Nov p57**
Corlett, Prof Nigel: The productive life **June p38**
Crookall, Prof John: Mid career education. Are we doing enough to meet the challenge of the 80s? **Jan p25**

D

Dempsey, Peter: The production engineer's only future—getting through to management **Jun p46**
Duff, James: After Burbidge—and all that! **Mar p47**

E

Eversheim, Prof W; Holz, B; Loersch, U: Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

F

Falconer, C; Gardner, G J; Lock, J D; Sime, A W: Flexible manufacture of prismatic and cylindrical shapes **May p19**

G

Gabe, Dr David: How to select a paint system **July/Aug p13**
Gardner, G J; Lock, J D; Sime, A W; Falconer, C: Flexible manufacture of prismatic and cylindrical shapes **May p19**
Grant, Ian: TV screen brings X-ray fault detection on to the production line **June p25**
Goldsmith, Tony: MIProdE—the route to Institution membership (Careers Special Feature) **Jan p47**

H

Hicks, Dr Howard: A year of achievement **Jun p3**
Hicks, Dr Howard: We have got to get our priorities right (Annual Dinner Speech) **Jan p16**
Holz, B; Eversheim, W; Loersch, U: Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

J

James, Huw: Thermal spraying puts most materials on most substrates **Jul/Aug p28**
Johns, Tony: Production engineers—this is your life! **Jan p50**

K

King, John: Use or ownership—the choices **Apr p46**
Kochhar, Dr A K: Low-cost computers in production planning and control systems **May p44**

W

We have got to get our priorities right **Jan p16**
Welding: Arc welding robots are not yet truly universal **Feb p19**
When investing in CNC really takes off **Dec p47**
Work measurement: Taking a new look at work measurement **May p34**

X

X-ray fault detection: TV screen brings X-ray fault detection on to the production line **June p25**

Y

Year of achievement, A **June p3**

Author index

L

Lawrie, John: Are you in the right job? (Careers Special Feature) **Jan p30**
Lincoln, Matt: Arc welding robots are not yet truly universal **Feb p19**
Lock, J D; Gardner, G J; Sime, A W; Falconer, C: Flexible manufacture of prismatic and cylindrical shapes **May p19**
Loersch, U; Eversheim, W; Holz, B: Automatic generation of process plans and NC tapes for sheet metal parts **Mar p28**

M

Miskin, Ray: Sixty years on—What next? **June p34**

N

Napper, John: Becoming an Associate Member **Jan p48**
New, Prof Ronald: Profile boring of 'deep' holes **Apr p41**

O

Ord, Keith: "The Production Engineer"—a film for youngsters **Jan p48**

P

Painter, C W; Parrish, D J: Flexible labour systems **Nov p26**
Parrish, D J; Painter, C W: Flexible labour systems **Nov p26**
Potts, Michael: "Engineer yourself a brighter future" **Oct p58**

R

Rhodes, Tony: Computer-aided roll design for cold roll forming **Sep p32**

S

Scriven, Alan: Tooling up with polycrystalline **Feb p31**
Sime, A W; Gardner, G J; Lock, J D; Falconer, C: Flexible manufacture of prismatic and cylindrical shapes **May p19**
Sizer, Prof John: How to make a wise investment. Make friends with your accountant. **Sep p59**

T

Tobin, John: Looking forward to a successful year **Oct p3**

V

Viney, Dr John: engineering careers—what are the options? **Jan p21**

W

Whitehead, Ralph: UK industry fails to apply microelectronics in manufacturing **Jan p65**
Wood, Larry: FMS—the only future for manufacturing **Apr p38**

